

these discussions are provided to help the United States Patent and Trademark Office better appreciate important claim distinctions discussed thereafter.

Applicants' Invention

The present invention is directed to systems and methods for moving (or bumping) graphical components, such as windows, between the display regions of a graphical user interface. A selected graphical component, e.g., a window, is moved in response to a signal from an input device. Upon receipt of a movement signal, a destination location for the graphical user component is determined or located. Then the graphical component is bumped to the destination location. The destination location is an open location. An open location normally includes an area of the display that no graphical component occupies. An open location may also be an area of an existing window in which no information is displayed, such as an area of the existing window that contains only white space. If multiple open locations are available, a decision is reached regarding which location is most desirable.

More specifically, in one form the invention is directed to a computer-implemented method of moving a graphical component from one location to another location in a graphical interface. The method comprises, in response to the selection of the graphical component, determining if the graphical component is to be moved from the current location of the graphical component to another location. If the graphical component is to be moved, the method comprises determining a destination location for the graphical component. The destination location comprises an open location in the graphical interface. The method then comprises moving the graphical component from the current location of the graphical component to the destination location.

U.S. Patent No. 5,880,733 ("Horvitz et al.")

Horvitz et al. discloses a three-dimensional perspective, virtual work space for window-based display systems (Abstract). More specifically, Horvitz et al. discloses a system that performs geometric transformation operations on rectangular windows to give the impression to users that the windows are positioned in a three-dimensional space (Col. 3, lines 10-14). Horvitz et al. further states that the display system responds to user activation of control buttons by transforming the shape and orientation of windows consistent with the defined three-dimensional space (Col. 3, lines 17-20). The Horvitz et al. three-dimensional space is enclosed by boundary planes including left, right, front, back, upper, and lower planes (Col. 3, lines 22-26). Horvitz et al. discloses that "[w]hen the transformation command is entered by a user or from a program, a window is transformed and moved to the selected plane of the display system" (Col. 3, lines 47-50; emphasis added). This is in contrast to the present invention wherein a computer-implemented method determines if a graphical component is to be moved. Horvitz et al. further discloses that "windows may be stacked behind one another as illustrated with windows 70 and 72" (Col. 13, lines 51-53; Figure 1; emphasis added). This is in contrast to the present invention where a method is provided for determining an open location to which the graphical component is moved.

In summary, Horvitz et al. discloses a three-dimensional virtual work space wherein a user indicates that a window should be displayed in a particular perspective. In contrast, the present invention provides a method for determining if a graphical component is to be moved and for moving said graphical component to an open location.

U.S. Patent No. 6,573,913 ("Butler et al.")

Butler et al. discloses repositioning and displaying an object in a multiple monitor environment. When two or more of the monitors have different color characteristics,

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overlapping images are processed in accordance with the particular color characteristics of the monitors to accommodate for the differences. An image displayed on a first monitor can be repositioned such that a first portion of the image is displayed on the first monitor and a second portion is displayed on the second monitor. When this occurs, the data representing a first portion of the image is moved from a first location to a second location in a frame buffer in a bit block transfer operation. If the first and second monitors have the same color characteristics, the data representing the second portion is also transferred using a bit block operation. However, if the color characteristics are different, the data representing the second portion of the image is passed through a display engine that adapts the data to the particular color characteristics of the second monitor.

Other than its disclosure of multiple monitors, as described more fully below, Butler et al. appears to have no relevance to the present invention.

U.S. Patent No. 5,796,402 ("Ellison-Taylor")

Ellison-Taylor discloses the placement of windows on a computer screen. Ellison-Taylor, Col. 1, lines 12-14. Ellison-Taylor discloses a method for aligning and proportionally sizing windows to "tile" the windows covering the entire screen while preserving the relative sizes and positions of the windows. Ellison-Taylor, Col. 2, lines 13-19 and 22-24. Ellison-Taylor discloses a "tiling program that aligns the windows so that their sides touch and so that they fill a bounding window." Ellison-Taylor, Col. 3, lines 42-44.

In summary, Ellison-Taylor discloses a method for aligning and proportionally sizing windows to tile the windows on the screen, in contrast to the present invention where a graphical component is bumped to a new location on screen in response to the selection of the graphical component.

Rejection of Claims 1-8, 17, 20, 21, 23/1, 23/3, 23/4, 23/8, 23/20, 24/1, 24/3, 24/4, 24/8, 24/20, and 25-27 Under 35 U.S.C. § 103(a)

As mentioned above, the Office Action rejected the above-mentioned claims as being unpatentable over Horvitz et al. Independent Claim 1 recites "A computer-implemented method of moving a graphical component from one location to another location in a graphical interface" that includes "in response to the selection of a graphical component, determining if said graphical component is to be moved from the current location of the graphical component to another location; if said graphical component is to be moved, determining a destination location for said graphical component, said destination location comprising an open location in said graphical interface" (emphasis added). Horvitz et al. does not teach or suggest a computer-implemented method of determining if a graphical component is to be moved. The Office Action states "with the exception of explicitly teaching determining if said graphical component is to be moved from the current location" (page 3, item 1), Horvitz et al. discloses that when a "transformation command is entered by a user," a window is transformed and moved to the selected plane (Col. 3, lines 47-50; emphasis added). Hence, Horvitz et al. teaches away from a computer-implemented method of determining if a graphical component is to be moved. Horvitz et al. explicitly discloses that a window is moved upon a transformation command that is entered by a user. Furthermore, Horvitz et al. does not teach or suggest determining a destination location. Horvitz et al. discloses three primary controls used to position a window hung on a plane: push-back, perspective-transform right, and perspective-transform left. Alternatively, a single transformation control for transforming windows to the various planes may be implemented. Upon selection of the single transformation control, the display system provides a pointer to a selected plane. Generally, the pointer is provided when the cursor control is activated in the direction of a predefined plane. The user may release the cursor control to

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initiate the transfer (Col. 4, lines 36-54). Therefore, Horvitz et al. discloses that the user, not the system, determines where the destination location is for moving the window. Furthermore, Horvitz et al. does not teach or suggest said destination location comprising an open location. In Figure 1, Horvitz et al. discloses that "windows may be stacked behind one another as illustrated with windows 70 and 72. Windows 72 appears behind windows 70" (Col. 13, lines 51-53; emphasis added). Therefore, independent Claim 1 is respectfully submitted to be allowable for at least the reasons discussed above.

Independent Claim 25 recites substantially the same features as discussed with respect to Claim 1 and is submitted to be allowable for at least the same reasons presented above with respect to Claim 1.

Claims 2-8, 17, 20, 21, 23/1, 23/3, 23/4, 23/8, 23/20, 24/1, 24/3, 24/4, 24/8, 24/20, and 26-27 depend from independent Claims 1 and 25, directly or indirectly, and are submitted to be allowable for at least the same reasons presented above with respect to Claims 1 and 25.

Rejection of Claims 9-13, 15, 16, 18, 19, 22, 23/9, 23/22, 24/9, 24/22, and 28 Under 35 U.S.C. 103(a)

As noted above, the above-mentioned claims were rejected as being unpatentable over Horvitz et al., in view of Butler et al. Claim 19 depends from Claim 1 via Claim 15, and is submitted to be allowable for at least the same reasons presented above with respect to Claim 1. Additionally, Claim 19 recites "said blocking graphical components include other graphical components accessed within a predetermined time period prior to determining a destination location for said graphical component" (emphasis added). Horvitz et al. does not teach or suggest accessing other graphical components within a predetermined time period prior to determining the designation location. Horvitz et al. discloses that the window 30 may contain additional smaller windows which may take the form of push-buttons, radio buttons, check

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boxes, and the like. A user sees a window as an object on the screen and interacts directly with the objects by pushing buttons 34 or scrolling a scroll bar (Col. 8, lines 55-65). Horvitz et al. does not teach or suggest accessing such graphical objects within a predetermined time prior to determining a destination location. Butler et al. fails to supply the teachings missing from Horvitz et al. Butler et al. is directed towards repositioning and displaying an object in a multiple monitor environment and otherwise appears to have no relevance to the present invention. Therefore, Claim 19 is submitted to be allowable for this additional reason.

Claims 9-13, 15, 16, 18, 22, 23/9, 23/22, 24/9, 24/22, and 28 depend from Claims 1 and 25, directly or indirectly, and are submitted to be allowable for at least the reasons presented above with respect to Claims 1 and 25.

Rejection of Claim 29 Under 35 U.S.C. § 103(a)

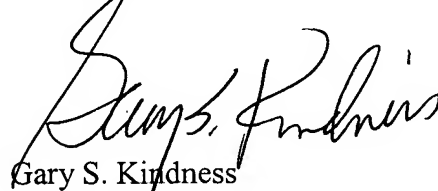
As noted above, the Office Action rejected Claim 29 under 35 U.S.C. § 103(a) as being unpatentable over Horvitz et al., in view of Ellison-Taylor. Claim 29 depends from Claim 25 and is submitted to be allowable for at least the same reasons presented above with respect to Claim 25. Additionally, Claim 29 recites: "said window expands to fill the area of said optimal open destination" (emphasis added). As recognized in the Office Action, Horvitz et al. does not teach expansion of the window to fill the optimal open destination (page 17, item 3). Ellison-Taylor fails to supply the teachings missing from Horvitz et al. Ellison-Taylor discloses a method for aligning and proportionally sizing windows to "tile" the windows covering the entire screen while preserving the relative sizes and positions of the windows (Col. 2, lines 13-19 and 22-24). Ellison-Taylor does not teach or suggest filling the area of an open destination, which is a subset of the entire screen. Therefore, Claim 29 is submitted to be allowable for at least this additional reason.

CONCLUSION

In summary, applicants respectfully submit that all the claims in this application are clearly allowable in view of the disclosures of Horvitz et al., Butler et al., and Ellison-Taylor, applied singly or in any motivated combination. As a result, applicants respectfully request that all of the claims remaining in this application be allowed and this application be passed to issue. If the Examiner has any questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

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Date:

June 5, 2006 Patricia A. Gable

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